VAN VLECK NOTES

December 1986

This first edition of "VAN VLECK NOTES" was not intended to be a holiday letter; it just turned out that way. I'll vouch for most of the information, but not all of it. Some was acquired in the form "last I heard ...." We all know, of course, that news publications are not totally accurate and we don't want to deviate from the norm. If you can update any items or have a news item, drop us a line. If you feel we've omitted something useful, e.g. a "Dear Abel" column, let us know. Our aim is to have one issue a year, possibly two if we're bursting with news. We'd like to avoid adding very much to the wood pulp in your life, not to mention fire hazards, etc. All the best in 1987!

Bob Turner

Around Van Vleck

Several years ago computers started to trickle into Van Vleck. Many of you will remember the Apple Computer in room 507 which served legions and suffered silently like a good dog. During the past three years computers have been introduced into the teaching program. Several members of the department were provided with computers by IBM through the Trochos Project. The equipment was granted to faculty members for innovative proposals on the use of computers in instruction. Three classrooms are equipped with Sony video projectors and computers to allow display of graphic and numerical output. To date approximately 15 of the faculty have made use of computers in their courses and the results are favorable. To facilitate computer usage a laboratory with 30 computers has been set up on the plaza level over the library. Rod Smart, Creighton Buck, and Howard Conner have been largely responsible for organizing this. The

Legislature provided $116,000 for remodeling and furnishings while AT&T provided a very nice deal on equipment. This semester we are witnessing an avalanche of computers in Van Vleck thanks to a major donation by AT&T to the University, valued at more than $1.7 million, the Mathematics Department's share being over $800,000. The system includes a 3B15 main unit to be located on the 5th floor, a smaller 3B2/400 on each floor, and 90 terminals or computers, including twenty 6300's in faculty offices. Eventually all of the offices will be linked through a local ethernet and to external networks like ARPA. Soon you'll be able to send your buddies in Van Vleck electronic mail.

Van Vleck Bequest

The 9th floor lounge continues to be a focal point of activity in the department. The blackboards at either end of the room continue to be covered with various layers of integrals, bundles, and grading curves. The Wednesday noon talks on subjects in and outside of mathematics are still an institution. Two days a week, on Friday before colloquium and on Wednesday, there is an official "coffee" with cookies. It is still not clear which is more dangerous, reaching for cookies or putting one's hand in one of the closing elevator doors. Of course, the lounge is also the scene of chess and bridge games, particularly late in the afternoon.

After nearly 25 years of constant use the furnishings have begun to disintegrate at an alarming rate. The problem of refurbishing and maintaining the lounge will soon be solved thanks to a substantial donation made by the late John

Hasbrouck Van Vleck before his death in 1980. This generous gift provides an endowment large enough to underwrite the needed furniture and cover other maintenance costs as well. Already the old draperies, which were in shreds and had the appearance of an unfinished macrame project, have been replaced by elegant new vertical blinds. It is hoped to have all new furniture in place by next spring.

John Hasbrouck Van Vleck was, of course, the son of Edward Burr Van Vleck for whom our building is named, as well as the grandson of John Monroe Van Vleck, also a mathematician. John Hasbrouck was Hollis Professor of Mathematics and Natural Philosophy at Harvard until his retirement in 1969 and a winner of the Nobel Prize for Physics in 1977 for his work on molecular magnetism.

COMINGS AND GOINGS

New Faculty:

AMIR ASSADI is a new associate professor who received his PhD from Princeton in 1978 with William Browder. His interests include transformation groups and K-theory.

CAROL BEZUIDENHOUT is a Van Vleck Assistant Professor who works in many areas of probability theory. Her PhD was done under the direction of Steven Orey at Minnesota in 1985.

WILLY HEREMAN is a Van Vleck Assistant Professor who received his PhD from the University of Ghent with R. Mertens in 1982. His research is in applied mathematics, particularly the areas of nonlinear waves and acousto-optics.

CHI-KWONG LI is a Van Vleck Assistant Professor who received his PhD from the University of Hong Kong this year, working with Y. K. Au-Yeung. His interests are in matrix theory,

operators, and combinatorics.

KAI-CHING LIN is also a new Van Vleck Assistant Professor who does harmonic analysis on polydiscs. His PhD was with Alice Chang at UCLA in 1984.

Visitors and Honorary Fellows:

JEAN-PIERRE ROSAY is visiting from the Universite de Provence in Marseille. His field is several complex variables.

MIROLJUB JEVTIC is a complex analyst visiting from the University of Belgrade.

FRANK GARVAN received his PhD this year with George Andrews at Penn State. He works on combinatorial problems in partition theory.

DANIEL BRITTEN and FRANCIS LEMIRE are sporadic visitors from the University of Windsor, Ontario to work with Marshall Osborn and Georgia Benkart.

PAUL CAMPBELL is visiting from Beloit College, continuing work with Hans Schneider.

SUNG KI KIM is here from Seoul National University and works in the areas of Fourier analysis, functions of bounded variation, and PDE's.

MORDECHAI LEWIN is here from the Technion in Israel to work with Dick Brualdi and Hans Schneider.

MIODRAG RASKOVIC is here from Yugoslavia to work with Jerry Keisler

New Support Staff:

MARY MIKLA came from the Chemistry Department, UW-Eau Claire. She works with the Assignment and Timetable Committees, and does technical typing.

Van Vleck Assistant Professors who left this past year and their new positions are:

ALLEN BROUGHTON...Cleveland State Univ

JOSE FERNANDEZ..University of Maryland

STEVE JACKSON...NSF Postdoc at Cal Tech

KAILASH MISRA...North Carolina State University

TOM PENCE...Michigan State University

BLAKE TEMPLE...Univ. of California, Davis

MICHAEL WILSON...University of Vermont

A possible departure:

MICHAEL and YURIKO RENARDY have taken positions at Virginia Polytechnic Institute. He is on leave from Madison and we would be delighted to have them back here, but they are happy in Blacksburg.

Graduates:

Our recent PhD's are scattered around the globe. In the past year there have been thirteen PhD's earned. For this first newsletter we've gone back another year and list below the placements we know about since December, '84.

AHMADI, MOHAMMAD .... U.W. Whitewater
BESLAGIC, AMER .... Math. Institute, Berkeley
BOYLES, DAVID .... Washington Univ.
CASTILLO CHAVES, CARLOS .... University of Tulsa
CHAVEY, DARRAH .... U.W. Madison
CHIN, WILLIAM ... Univ. of Texas, Austin
EBEL, DAVE .... Lincoln Lab, Lexington, Mass
FELDMAN, ALEX .... Odyssey Research Assoc, Ithaca, NY
GUNTER, CARL .... Carnegie-Mellon Univ., Comp Sci

HAEFNER, JEREMY .... Univ of Tennessee
HATZIAFRATIS, TELEMACHOS .... Serving in Greek Army
HWANG, SUK .... Kyungpook Univ., South Korea
JACOBS, JONATHAN .... General Research Corp., McLean, Va.
KIME, KATHY .... Chateaubriand Fellowship, Le Chesnay, France
LEVENTHAL, SHLOMO .... Michigan State Univ.
LOPER, KEN .... Hope College, Holland, Mich
McCORD, CHRIS .... Univ. of Cincinnati
MERRILL, JOHN .... not known
MISCHAIKOW, KONSTANTIN .... Brown Univ.
NEIDHARDT, WAYNE .... Clark Univ., Worcester, Mass
QUINN, DECLAN .... Univ. of Cincinnati
REED, ROBERT .... Mass. Dept. of Environmental Quality
REINECK, JIM .... Northwestern Univ.
SCOFIELD, JEREMY .... In computer consulting business, Seattle
SHAHRIARI, SHAHRIAR .... California State Univ., Northridge
SOLHEID, ERNIE .... Bucknell Univ.
SOLOMON, WIREMU .... Univ. of Auckland, New Zealand
STUART, JEFFREY ... Northern Illinois Univ.
SUEIRO-BAL, JUAN .... Michigan State Univ.
TATSUOKA, KAY .... Univ. of Texas, Austin
THRON, CHRIS .... Northwest Inst. of Light Tech., Xian Yang, China
VELICKOVIC, BOBAN .... Cal Tech
WEINER, DAN .... Univ. of Nebraska
ZIELINSKI, MICHAEL .... Saint Olaf's College, Northfield, Minn
ZIVALJEVIC, RADE .... Western Illinois Univ.

Recent MA's that we have news of:

MARTHA GRUELLE....working for UAW in Detroit

TIM KEITH....working for Zertex Software in Oregon

DOROTHY KERZEL....teaching at Lawrence U., Appleton

MIKE LESAR....transferred to Comp Sci

DIANA LUND...teaching at Clarion College, Penn.-may return here for PhD

CELESTE PEYTON CARTER...teaching at a private high school in Texas

JIM RIDOUT...transferred to Physics

BLAIR WELLENSIEK...Studying for MBA, Univ. of Chicago

FACULTY NEWS:

RICHARD ASKEY has been awarded a Houses Professorship by the Graduate School. He has chosen the name Gabor Szego Professor and along with the name will have a large pot of money to spend on research related activities over the next five years. He has also been elected as one of the Vice-Presidents of the AMS for a two year term.

CARL DE BOOR was appointed to the Committee on Science Policy of the American Mathematical Society for a term of three years.

RICHARD BRUALDI is the recipient of a "Chancellor's Award for Excellence in Teaching". He received $2,500.

MICHAEL CRANDALL gave the Annual Lecture Series in the Mathematical Sciences at the University of Arkansas last spring. His topic was "Hamilton-Jacobi Equations".

DONALD CROWE has been selected for the editorial board of the 1987 Yearbook of the National Council of Teachers of Mathematics. The special topic for the '87 yearbook will be "Geometry".

JERRY KEISLER has been elected to the Colloquium Editorial Committee of the AMS.

KEN KUNEN just returned from a lecture tour in China joining the ranks of several colleagues who have gotten their Mooshu Pork the hard way.

ARNOLD MILLER who returned to Madison from Texas two years ago was awarded a Romnes Fellowship by the Graduate School. This award provides funds for recently tenured faculty to use for reduced teaching and other academic activities.

ALEX NAGEL's topic was "Nonisotropic Metrics in Real and Complex Analysis" at a recent hour talk of the AMS in Texas.

DON PASSMAN was the principal speaker at a CBMS Regional Conference at Mankato State University in Minnesota a year ago June. He lectured on "Group rings, crossed products, and Galois theory". He had a scare during the conference when a flu virus found its way to his heart muscle, but he was soon back on his feet.

PAUL RABINOWITZ was selected this past year for a new named professorship in mathematics, the E.B. Van Vleck Professorship. Last year he had been awarded a Houses Professorship by the Graduate School and was a recent American Math Society Colloquium speaker.

LOUIS SOLOMON gave an Invited Talk of the MAA at a sectional meeting in DeKalb

MARY ELLEN RUDIN gave the "Cairnes Lectures" at the University of Illinois this fall. The topic was "Manifolds". She was also chairman of the U.S. National Committee for Mathematics in connection with the International Mathematical Union.

WALTER RUDIN was a CBMS lecturer in the summer of '85 at the University of Michigan. He delivered ten lectures on "New Constructions of Holomorphic Functions".

TA Teaching Awards:

Mark Lawrence won a Graduate School Teaching Award this past year. He received $500.

The Mathematics Department last year instituted its own teaching awards for TA's, realizing that not all of our super teachers can be recognized at the university level. The awards are funded by contributions to the UW Foundation Department of Mathematics Fund. Each year there will be up to four awards, though to do a little catching up eight were given in the first year. The recipients, each of whom received $50 and a framed certificate were:

DIANE BOYLES, SU DOREE, ISMOR FISCHER, SCOTT MARKEL, DAVE McMICHAEL, JOHN RAMSEY, KARI SHAW, and CHUCK WELSH.

Undergraduate Awards:

The following students were selected for Mathematics Department awards for 1986-87:

ANDREW D. BAILEY III - Professor Linnaeus Wayland Dowling Scholarship
TERRENCE J. BUEHLER - Mark H. Ingraham Scholarship
KIN CHI CHAN - Professor Linnaeus Wayland Dowling Scholarship
KI-LING CHEUNG - Irma L. Newman Scholarship
JOHN R. GILLETT - Professor Linnaeus Wayland Dowling Scholarship
ADEL JOOBEUR - Professor Linnaeus Wayland Dowling Scholarship
ROBERT C. MATTSON - an award from the David Lawrence Young Memorial Fund
ROBERT TAN - Frank D. Cady Scholarship
SUSAN WEBER - Hazel Duling Scholarship

Math Club:

The undergraduate Mathematics Club had a spurt of activity in the last year thanks to the organizational efforts of Mai-Lan Ngoc Huynh. She was given a Mathematics Department Service Award in the amount of $200 in recognition of her extraordinary service.

Van Vleck Hall to be 25:

Since Van Vleck Hall was dedicated in 1963, it has been home to hundreds of faculty and graduate students. Nearly 500 students have received PhD's, vast numbers of theorems have been proved, and innumerable cups of coffee have been drunk within the confines of Van Vleck. We are looking for an appropriate way of recognizing the twenty-fifth anniversary of the dedication in 1988. If you have suggestions please direct them to Department Chair, Tom Kurtz.

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